AMENDMENTS TO THE CLAIMS:

The listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1.   (currently amended)   A printing workflow system disposed in a network environment for coordinating production of document processing jobs ~~among a plurality of cells, wherein each cell is comprised of one of a plurality of devices and resources for completing document processing jobs~~, said printing workflow system comprising:

a plurality of autonomous cells, wherein each cell is comprised of a plurality of devices and resources at least some devices and resources performing distinct operations from one another, and that are capable of accomplishing at least one type of document processing job;

a workflow mapping module that determines workflow for a selected one of said document processing jobs;

a job decomposition module for splitting selected document processing job into sub-jobs that are accomplished by ~~and for sending said sub-jobs to~~ given ones of the autonomous cells ~~for further processing~~; ~~and~~

a cell assignment module for assigning said sub-jobs to said given ones of the autonomous cells capable of accomplishing entire said sub-job; and

a product cell controller at a selected one of the given cells for receiving at least one of said autonomous sub-job and for further splitting said job into lots for processing among said plurality of devices in said selected autonomous cell.

2.   (canceled)

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3.   (currently amended)   The <u>printing</u> ~~print~~ workflow system of claim 22 further comprising a storage device for holding information regarding ~~storing~~ capacities and capabilities of said cells <u>and for storing information regarding workflow of each document processing job said workflow comprising a sequence of operations needed to be performed to accomplish the selected document processing job</u>.

4.   (canceled)

5.   (canceled)

6.   (currently amended)   The <u>printing</u> ~~print~~ workflow system of claim 3 wherein said product cell controller <u>splits said sub-jobs into optimal lot sizes determined by analyzing said workflow of</u> ~~module assigns a number of "kanbans" to associate with~~ said selected document processing job<u>, wherein said sub-job is split into smaller lots for optimal utilization of said cell devices such that as one said cell device processes one said lot another said cell device processes another said lot simultaneously</u>.

7.   (currently amended)   The <u>printing</u> ~~print~~ workflow system of claim 6 wherein said product cell controller <u>assigns a</u> ~~module adjusts the~~ number of "kanbans" to <u>said lots as workflow control elements</u> ~~further maximize utilization of the devices associated with said document processing job~~.

8.   (currently amended)   The <u>printing</u> ~~print~~ workflow system of claim 7 wherein said ~~product~~ cell <u>devices send authorization to upstream devices to supply</u> said cell ~~controller module stores the number of "kanbans" used by a selected one of the~~ devices <u>with next said lot</u>.

9.   (currently amended)   A method used in a print workflow system disposed in a network environment for coordinating production of document processing jobs ~~among a plurality of cells, wherein each cell is comprised of one of a plurality of devices for completing document processing jobs~~, said <u>method</u> ~~printing~~

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~~workflow system~~ comprising:

partitioning document processing devices and resources into a plurality of autonomous cells capable of accomplishing at least one type of document processing job; and

determining workflow for a selected one of said document processing jobs;

splitting selected document processing job into sub-jobs that are able to be entirely accomplished by ~~and sending said sub-jobs to~~ given ones of the autonomous cells ~~for further processing~~; ~~and~~

assigning said sub-jobs to said given ones of the autonomous cells capable of accomplishing entire said sub-job; and

receiving at a selected one of the given cells at least one sub-job and further splitting said sub-job into lots for processing among devices and resources in said selected autonomous cell.

10.   (canceled)

11.   (currently amended)   The method recited in claim 27 further comprising holding information regarding ~~storing~~ capacities and capabilities of said cells and for storing information regarding workflow of each document processing job, said workflow being comprised of a sequence of operations needed to be performed to accomplish the selected document processing job.

12.   (canceled)

13.   (canceled)

14.   (currently amended)   The method recited in claim 11 wherein said receiving step further comprises splitting said sub-job into optimal lot sizes

determined by analyzing said workflow of ~~assigns a number of "kanbans" to associate with~~ said selected document processing job, whereby said sub-job is split into smaller lots for optimal utilization of said cell devices.

15. (currently amended)   The method recited in claim 14 wherein said receiving step assigns a ~~adjusts the~~ number of "kanbans" to said lots as workflow control elements ~~further maximize utilization of the devices associated with said document processing job~~.

16. (currently amended)   The method recited in claim 15 wherein said receiving step further comprises sending authorization from cell devices to upstream devices to supply ~~stores the number of "kanbans" used per~~ said selected cell devices with next said lot.

17. (original)   A method for assigning sub-jobs to available cells in a printing workflow system for coordinating document processing jobs, wherein each of the available cells is comprised of at least one device for printing a product-type, the method comprising:

identifying maximum capacity of each of the available cells to print the product-type;

identifying current loading of each of the available cells to print product-type;

determining based on the maximum capacity and current loading of each of the available cells a current capacity of each of the available cells to print the product-type; and

assigning at least one of the available cells for printing the product-type based on the current capacity of each of the available cells.

18. (original)   The method of claim 17 wherein the print workflow system

stores the maximum capacities of each of the available cells in the print workflow system.

19. (original) The method of claim 17 further comprising a pull-type control policy for determining whether a cell can be assigned new document processing jobs.

20. (original) The method of claim 17 wherein the print workflow system updates the current loading of each available cells.

21. (original) The method of claim 17 wherein the print workflow system updates the maximum capacity.

22. (new) The printing workflow system of claim 1 wherein there is no dependence among said cells and their corresponding devices in that each cell operates autonomously relative to the other cells.

23. (new) The printing workflow system of claim 22 wherein a first autonomous cell includes a printer and a binder and a second autonomous cell includes a copier and a collator.

24. (new) The printing workflow system of claim 22 wherein ones of said autonomous cells include at least one said device not included in other ones of said autonomous cells.

25. (new) The printing workflow system of claim 3 wherein the workflow mapping module uses said information to determine a workflow for a selected document processing job and the job decomposition module uses said workflow to split said document processing job into autonomous sub-jobs.

26. (new) The printing workflow system of claim 25 wherein the cell assignment module uses said workflow to assign said autonomous sub-jobs to given ones of said autonomous cells capable of accomplishing entire said sub-job.

27.   (new)   The printing workflow system of claim 8 wherein said assigned "kanbans" are released as said lots are processed and said assigned "kanbans" become available for future authorization of said lots.

28.   (new)   The method recited in claim 9 wherein there is no dependence among said cells and their corresponding devices in that each cell operates autonomously relative to the other cells.

29.   (new)   The method recited in claim 11 wherein the step of determining uses said information to determine said workflow for a selected document processing job and the job decomposition module uses said workflow to split said document processing job into autonomous sub-jobs.

30.   (new)   The method recited in claim 29 wherein the cell step of assigning uses said workflow to assign said autonomous sub-jobs to given ones of said autonomous cells capable of accomplishing entire said sub-job.

31.   (new)   The method recited in claim 16 further comprising releasing said assigned "kanbans" as said lots are processed, whereby said assigned "kanbans" become available for future authorization of said lots.